

# A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 14-136-158

CLIENT NO: 5441-D

SEND TO: TERRA RENEWAL  
12812 VALLEY VIEW #9  
GARDEN GROVE, CA 92845

SUBMITTED BY: CHRIS MARKS

CUSTOMER: MERCED

LAB NO: 26965

DATE: 05/22/2014

## ORGANIC FERTILIZER REPORT

PAGE: 1

| SAMPLE ID | REPORT OF ANALYSIS IN PERCENT |              |   |             |                         |          |              |            |           | REPORT OF ANALYSIS IN PARTS PER MILLION |             |              |           |         |     |  |
|-----------|-------------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---|-------------|--------------|-----------|---------|-----|--|
|           | Nitrogen N                    | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe                                 | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B   |  |
| EBMUD     | 3.79                          | 2.92         | 6.69                                    | 0.530       | 0.638                   | 2.020    | 0.780        | 2.880      | 0.630     | 35290                                   | 25200       | 433          | 307       | 712     | 9.0 |  |

| SAMPLE ID | POUNDS OF NUTRIENTS / TON |              |   |             |                         |          |              |            |           |         |             |              |           |         |      |  |
|-----------|---------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---------|-------------|--------------|-----------|---------|------|--|
|           | Nitrogen N                | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| EBMUD     | 75.8                      | 58.4         | 133.8                                   | 10.6        | 12.8                    | 40.4     | 15.6         | 57.6       | 12.6      | 70.6    | 50.4        | 0.9          | 0.6       | 1.4     | <0.1 |  |

☐ Reported on an as-received basis      Moisture =

☒ Reported on a dry basis      Moisture = 77.10%

**Remarks:** To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

pH = 8.5  
C:N Ratio = 6:1  
Soluble Salts = 3.3 dS/m  
Organic Matter = 45.09 %  
Ammonia Nitrogen = 0.233 %  
Nitrate Nitrogen = <0.003 %  
Chloride = 0.98 %  
Organic Nitrogen = 3.55 %  
Volatile Solids = 45.09 %

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This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

  
Robert Butterfield

A & L WESTERN LABORATORIES, INC.

DENALI\_002491

# A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 14-136-158

CLIENT NO: 5441-D

SEND TO: TERRA RENEWAL  
12812 VALLEY VIEW #9  
GARDEN GROVE, CA 92845

SUBMITTED BY: CHRIS MARKS

CUSTOMER: MERCED

LAB NO: 26966

DATE: 05/22/2014

## ORGANIC FERTILIZER REPORT

PAGE: 2

| SAMPLE ID | REPORT OF ANALYSIS IN PERCENT |              |   |             |                         |          |              |            |           | REPORT OF ANALYSIS IN PARTS PER MILLION |             |              |           |         |      |  |
|-----------|-------------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---|-------------|--------------|-----------|---------|------|--|
|           | Nitrogen N                    | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe                                 | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| VISALIA   | 2.36                          | 1.17         | 2.68                                    | 0.380       | 0.458                   | 0.550    | 0.510        | 1.930      | 0.090     | 19600                                   | 14820       | 238          | 146       | 575     | 18.0 |  |

| SAMPLE ID | POUNDS OF NUTRIENTS / TON |              |   |             |                         |          |              |            |           |         |             |              |           |         |      |  |
|-----------|---------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---------|-------------|--------------|-----------|---------|------|--|
|           | Nitrogen N                | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| VISALIA   | 47.2                      | 23.4         | 53.6                                    | 7.6         | 9.2                     | 11.0     | 10.2         | 38.6       | 1.8       | 39.2    | 29.6        | 0.5          | 0.3       | 1.2     | <0.1 |  |

☐ Reported on an as-received basis      Moisture =

☒ Reported on a dry basis      Moisture = 55.96%

**Remarks:** To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

pH = 6.4  
C:N Ratio = 16:1  
Soluble Salts = 2.4 dS/m  
Organic Matter = 66.92 %  
Ammonia Nitrogen = 0.102 %  
Nitrate Nitrogen = 0.005 %  
Chloride = 0.21 %  
Organic Nitrogen = 2.25 %  
Volatile Solids = 66.92 %

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Robert Butterfield

A & L WESTERN LABORATORIES, INC.

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# A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 14-136-158

CLIENT NO: 5441-D

SEND TO: TERRA RENEWAL  
12812 VALLEY VIEW #9  
GARDEN GROVE, CA 92845

SUBMITTED BY: CHRIS MARKS

CUSTOMER: MERCED

LAB NO: 26967

DATE: 05/22/2014

## ORGANIC FERTILIZER REPORT

PAGE: 3

| SAMPLE ID | REPORT OF ANALYSIS IN PERCENT |              |   |             |                         |          |              |            |           | REPORT OF ANALYSIS IN PARTS PER MILLION |             |              |           |         |     |  |
|-----------|-------------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---|-------------|--------------|-----------|---------|-----|--|
|           | Nitrogen N                    | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe                                 | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B   |  |
| SAN MATEO | 5.38                          | 2.31         | 5.29                                    | 0.120       | 0.145                   | 1.620    | 0.620        | 2.490      | 0.150     | 38090                                   | 5609        | 920          | 321       | 985     | 8.0 |  |

| SAMPLE ID | POUNDS OF NUTRIENTS / TON |              |   |             |                         |          |              |            |           |         |             |              |           |         |      |  |
|-----------|---------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---------|-------------|--------------|-----------|---------|------|--|
|           | Nitrogen N                | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| SAN MATEO | 107.6                     | 46.2         | 105.9                                   | 2.4         | 2.9                     | 32.4     | 12.4         | 49.8       | 3.0       | 76.2    | 11.2        | 1.8          | 0.6       | 2.0     | <0.1 |  |

☐ Reported on an as-received basis      Moisture =

☒ Reported on a dry basis      Moisture = 80.82%

**Remarks:** To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

pH = 8.2  
C:N Ratio = 3:1  
Soluble Salts = 1.9 dS/m  
Organic Matter = 32.44 %  
Ammonia Nitrogen = 0.071 %  
Nitrate Nitrogen = <0.003 %  
Chloride = 0.46 %  
Organic Nitrogen = 5.30 %  
Volatile Solids = 32.44 %

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Robert Butterfield

A & L WESTERN LABORATORIES, INC.

DENALI\_002493

# A & L WESTERN AGRICULTURAL LABORATORIES

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REPORT NUMBER: 14-136-158

CLIENT NO: 5441-D

SEND TO: TERRA RENEWAL  
12812 VALLEY VIEW #9  
GARDEN GROVE, CA 92845

SUBMITTED BY: CHRIS MARKS

CUSTOMER: MERCED

LAB NO: 26968

DATE: 05/22/2014

## ORGANIC FERTILIZER REPORT

PAGE: 4

| SAMPLE ID  | REPORT OF ANALYSIS IN PERCENT |              |   |             |                         |          |              |            |           | REPORT OF ANALYSIS IN PARTS PER MILLION |             |              |           |         |      |  |
|------------|-------------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---|-------------|--------------|-----------|---------|------|--|
|            | Nitrogen N                    | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe                                 | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| SANTA CRUZ | 4.47                          | 3.02         | 6.92                                    | 0.110       | 0.133                   | 1.510    | 0.410        | 4.700      | 0.130     | 28780                                   | 15670       | 965          | 543       | 1135    | 13.0 |  |

| SAMPLE ID  | POUNDS OF NUTRIENTS / TON |              |   |             |                         |          |              |            |           |         |             |              |           |         |      |  |
|------------|---------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---------|-------------|--------------|-----------|---------|------|--|
|            | Nitrogen N                | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| SANTA CRUZ | 89.4                      | 60.4         | 138.4                                   | 2.2         | 2.7                     | 30.2     | 8.2          | 94.0       | 2.6       | 57.6    | 31.3        | 1.9          | 1.1       | 2.3     | <0.1 |  |

☐ Reported on an as-received basis      Moisture =

☒ Reported on a dry basis      Moisture = 76.78%

**Remarks:** To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

pH = 8.3  
C:N Ratio = 4:1  
Soluble Salts = 2.3 dS/m  
Organic Matter = 36.71 %  
Ammonia Nitrogen = 0.156 %  
Nitrate Nitrogen = <0.003 %  
Chloride = 0.38 %  
Organic Nitrogen = 4.31 %  
Volatile Solids = 36.71 %

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Robert Butterfield

A & L WESTERN LABORATORIES, INC.

DENALI\_002494

# A & L WESTERN AGRICULTURAL LABORATORIES

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REPORT NUMBER: 14-136-158

CLIENT NO: 5441-D

SEND TO: TERRA RENEWAL  
12812 VALLEY VIEW #9  
GARDEN GROVE, CA 92845

SUBMITTED BY: CHRIS MARKS

CUSTOMER: MERCED

LAB NO: 26969

DATE: 05/22/2014

## ORGANIC FERTILIZER REPORT

PAGE: 5

| SAMPLE ID | REPORT OF ANALYSIS IN PERCENT |              |   |             |                         |          |              |            |           | REPORT OF ANALYSIS IN PARTS PER MILLION |             |              |           |         |      |  |
|-----------|-------------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---|-------------|--------------|-----------|---------|------|--|
|           | Nitrogen N                    | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe                                 | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| LIVERMORE | 5.95                          | 3.75         | 8.59                                    | 0.230       | 0.277                   | 1.660    | 1.000        | 4.010      | 0.130     | 30010                                   | 6277        | 211          | 438       | 975     | 20.0 |  |

| SAMPLE ID | POUNDS OF NUTRIENTS / TON |              |   |             |                         |          |              |            |           |         |             |              |           |         |      |  |
|-----------|---------------------------|--------------|---|-------------|-------------------------|----------|--------------|------------|-----------|---------|-------------|--------------|-----------|---------|------|--|
|           | Nitrogen N                | Phosphorus P | Phosphate P <sub>2</sub> O <sub>5</sub> | Potassium K | Potash K <sub>2</sub> O | Sulfur S | Magnesium Mg | Calcium Ca | Sodium Na | Iron Fe | Aluminum Al | Manganese Mn | Copper Cu | Zinc Zn | B    |  |
| LIVERMORE | 119.0                     | 75.0         | 171.9                                   | 4.6         | 5.5                     | 33.2     | 20.0         | 80.2       | 2.6       | 60.0    | 12.6        | 0.4          | 0.9       | 2.0     | <0.1 |  |

☐ Reported on an as-received basis      Moisture =

☒ Reported on a dry basis      Moisture = 80.85%

**Remarks:** To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

pH = 7.6  
C:N Ratio = 3:1  
Soluble Salts = 2.5 dS/m  
Organic Matter = 29.93 %  
Ammonia Nitrogen = 0.104 %  
Nitrate Nitrogen = 0.004 %  
Chloride = 0.25 %  
Organic Nitrogen = 5.84 %  
Volatile Solids = 29.93 %

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